# **Projector**

# CP-S240/CP-X250 CP-S245/CP-X255

# User's Manual - Quick Guide

Thank you for purchasing this projector.

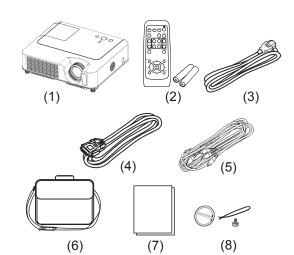
▲ WARNING ► Before using this product, please read the "User's Manual - Safety Guide" and related manuals to ensure the proper use of this product. After reading them, store them in a safe place for future reference.

**NOTE** • The information in this manual is subject to change without notice.

- The manufacturer assumes no responsibility for any errors that may appear in this manual.
- The reproduction, transfer or copy of all or any part of this document is not permitted without express written consent.

# Contents of package

- (1) Projector
- (2) Remote control with two AA batteries
- (3) Power cord
- (4) RGB cable
- (5) Audio/Video cable
- (6) Soft case
- (7) User's manuals
- (8) Lens cover, Rivet and Strap



**NOTE** • Keep the original packing materials for future reshipment. For moving the projector, be sure to use the original packing materials. Use special caution for the lens part.

# Arrangement

# Arrangement

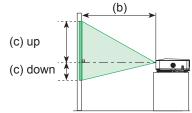
**△WARNING** ► Install the projector in a suitable environment according to instructions of the "User's Manual - Safety Guide".

**△CAUTION** ► This projector has some intake vents also on the bottom. Avoid blocking vents. Put nothing that is sucked or sticks to the bottom of projector.

(calculated for a full size screen, ±10%)







#### For the model CP-S240/CP-S245

(a) Screen size	4:3 screen				16 : 9 screen					
	(b) Projection distance		(c) Screen height		(b) Projection distance [m		(c) Screen height			
[inch (m)]	[m (inch)]		[cm (inch)]		(inch)]		[cm (inch)]			
[(/]	min.	max.	down	up	min.	max.	down	up		
30 (0.8)	0.9 (36)	1.1 (43)	5 (2)	41 (16)	1.0 (39)	1.2 (47)	-1 (0)	39 (15)		
40 (1.0)	1.2 (48)	1.5 (57)	6 (2)	55 (22)	1.3 (52)	1.6 (63)	-2 (-1)	51 (20)		
50 (1.3)	1.5 (60)	1.8 (72)	8 (3)	69 (27)	1.7 (65)	2.0 (79)	-2 (-1)	64 (25)		
60 (1.5)	1.8 (72)	2.2 (87)	9 (4)	82 (32)	2.0 (79)	2.4 (94)	-2 (-1)	77 (30)		
70 (1.8)	2.1 (84)	2.6 (101)	11 (4)	96 (38)	2.3 (92)	2.8 (110)	-3 (-1)	90 (35)		
80 (2.0)	2.4 (96)	2.9 (116)	12 (5)	110 (43)	2.7 (105)	3.2 (126)	-3 (-1)	103 (41)		
90 (2.3)	2.8 (109)	3.3 (130)	14 (5)	123 (49)	3.0 (118)	3.6 (142)	-4 (-1)	116 (46)		
100 (2.5)	3.1 (121)	3.7 (145)	15 (6)	137 (54)	3.3 (132)	4.0 (158)	-4 (-2)	129 (51)		
120 (3.0)	3.7 (145)	4.4 (174)	18 (7)	165 (65)	4.0 (158)	4.8 (190)	-5 (-2)	154 (61)		
150 (3.8)	4.6 (182)	5.5 (218)	23 (9)	206 (81)	5.0 (198)	6.0 (238)	-6 (-2)	193 (76)		
200 (5.1)	6.2 (242)	7.4 (291)	30 (12)	274 (108)	6.7 (264)	8.1 (317)	-8 (-3)	257 (101)		
250 (6.4)	7.7 (303)	9.3 (364)	38 (15)	343 (135)	8.4 (330)	10.1 (397)	-10 (-4)	322 (127)		
300 (7.6)	9.2 (364)	11.1 (437)	46 (18)	411 (162)	10.1 (397)	12.1 (476)	-12 (-5)	386 (152)		

#### For the model CP-X250/CP-X255

(a) Screen size	4:3 screen				16 : 9 screen					
	(b) Projection distance		(c) Screen height		(b) Projection distance [m		(c) Screen height			
[inch (m)]	[m (inch)]		[cm (inch)]		(inch)]		[cm (inch)]			
[IIIOII (III/]	min.	max.	down	up	min.	max.	down	up		
30 (0.8)	0.9 (36)	1.1 (43)	5 (2)	41 (16)	1.0 (39)	1.2 (47)	-1 (0)	39 (15)		
40 (1.0)	1.2 (48)	1.5 (58)	6 (2)	55 (22)	1.3 (52)	1.6 (63)	-2 (-1)	51 (20)		
50 (1.3)	1.5 (60)	1.8 (73)	8 (3)	69 (27)	1.7 (66)	2.0 (79)	-2 (-1)	64 (25)		
60 (1.5)	1.8 (73)	2.2 (87)	9 (4)	82 (32)	2.0 (79)	2.4 (95)	-2 (-1)	77 (30)		
70 (1.8)	2.2 (85)	2.6 (102)	11 (4)	96 (38)	2.4 (93)	2.8 (111)	-3 (-1)	90 (35)		
80 (2.0)	2.5 (97)	3.0 (117)	12 (5)	110 (43)	2.7 (106)	3.2 (127)	-3 (-1)	103 (41)		
90 (2.3)	2.8 (109)	3.3 (132)	14 (5)	123 (49)	3.0 (119)	3.6 (143)	-4 (-1)	116 (46)		
100 (2.5)	3.1 (122)	3.7 (146)	15 (6)	137 (54)	3.4 (133)	4.0 (159)	-4 (-2)	129 (51)		
120 (3.0)	3.7 (146)	4.5 (176)	18 (7)	165 (65)	4.0 (159)	4.9 (192)	-5 (-2)	154 (61)		
150 (3.8)	4.6 (183)	5.6 (220)	23 (9)	206 (81)	5.1 (200)	6.1 (240)	-6 (-2)	193 (76)		
200 (5.1)	6.2 (244)	7.5 (294)	30 (12)	274 (108)	6.8 (266)	8.1 (320)	-8 (-3)	257 (101)		
250 (6.4)	7.8 (306)	9.3 (367)	38 (15)	343 (135)	8.5 (333)	10.2 (400)	-10 (-4)	322 (127)		
300 (7.6)	9.3 (367)	11.2 (441)	46 (18)	411 (162)	10.2 (400)	12.2 (480)	-12 (-5)	386 (152)		

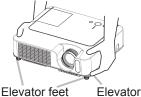
## Adjusting the projector's elevator

▲ CAUTION ► If you press the elevator button without holding the projector, the projector might crash down, overturn, smash your fingers and possibly result in malfunction. To prevent damaging the projector and injuring yourself, always hold the projector whenever using the elevator buttons to adjust the elevator feet. ► Do not incline the projector rightward or leftward. Also do not incline it backward

▶ Do not incline the projector rightward or leftward. Also do not incline it backward or forward exceeding 9 degrees. Exceeding these range could cause malfunction, and could shorten the lifetime of the consumables.

- ► Except for inclining by the elevator feet adjustment, place the projector horizontally.
- 1 After making sure that the projector is cool adequately, press and hold in the elevator buttons while holding the projector. The elevator buttons and the elevator feet are on the both sides.
- 2. Raise or lower the projector to the desired height and release the elevator buttons.

  When you release the elevator buttons, the elevator feet will lock into position.



elevator feet Elevator button

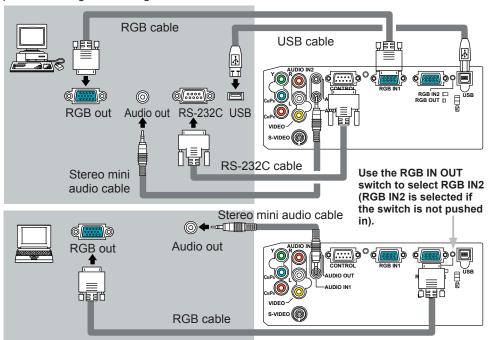
3. If necessary, you can also finely adjust the height of the projector by twisting the elevator feet by hand.

#### Connecting your devices

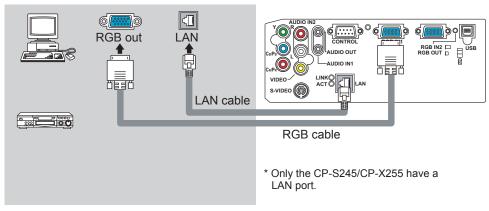
# Connecting your devices

## Examples of connection with a computer

\* In the default setting, the AUDIO IN1 port is the audio port for the RGB IN1 and RGB IN2 ports. To change the settings, refer to the AUDIO item in the SETUP menu.

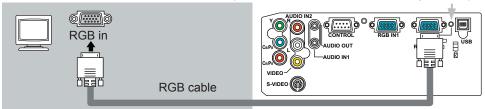


### For the models CP-S245/CP-X255

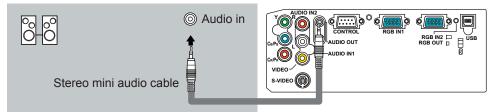


## Connecting to a monitor (output)

Use the RGB IN OUT switch to select RGB OUT (RGB OUT is selected if the switch is pushed in).

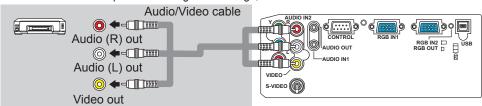


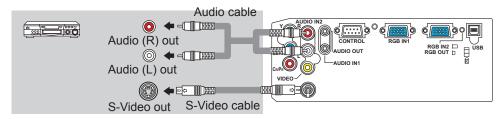
#### Connecting to a speaker with amplifier (output)

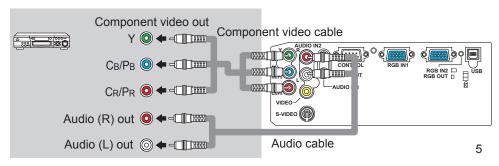


#### Examples of connection with a VCR/DVD player

\* In the default setting, the AUDIO IN2 L/R port is the audio port for the VIDEO, S-VIDEO and COMPONENT VIDEO ports. To change the settings, refer to the AUDIO item in the SETUP menu.







#### igl( Putting batteries into the remote control I Connecting the power supply

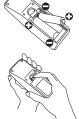
# Putting batteries into the remote control

**△WARNING** ► Always handle the batteries with care and use them only as directed. Improper use may result in battery explosion, cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.

- Be sure to use only the batteries specified. Do not use batteries of different types at the same time. Do not mix a new battery with used one.
- Make sure the plus and minus terminals are correctly aligned when loading a battery.
- Keep a battery away from children and pets.
- Do not recharge, short circuit, solder or disassemble a battery.
- Do not allow a battery in a fire or water. Keep batteries in a dark, cool and dry place.
- If you observe a leakage of a battery, wipe out the flower and then replace a battery. If the liquid adheres to your body or clothes, rinse well with water immediately.
- 1. Remove the battery cover.
  Slide back and remove the battery cover in the direction of the arrow.



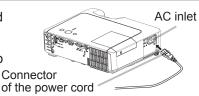
- 2. Insert the batteries.
  - Align and insert the two AA batteries according to their plus and minus terminals as indicated in the remote control.
- Close the battery cover.
   Replace the battery cover in the direction of the arrow and snap it back into place.



# Connecting the power supply

**△WARNING** ► Please use extra caution when connecting the power cord, as incorrect or faulty connections may result in fire and/or electrical shock.

- Only use the power cord that came with the projector. If it is damaged, contact your dealer to newly get correct one.
- Only plug the power cord into an outlet rated for use with the power cord's specified voltage range.
- Never modify the power cord. Never attempt to defeat the ground connection of the three-pronged plug.
- 1. Connect the connector of the power cord to the AC inlet of the projector.
- 2. Firmly plug the power cord's plug into the outlet.



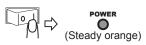
6

# Operating

**△WARNING** ► When the power is on, a strong light is emitted. Do not look into the lens of projector. Also do not peep at the inside of projector through a hole.

## Turning on the power

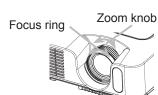
- 1 Set the power switch to the ON position.
- Press the STANDBY/ON (projector or remote control) button.





# **Displaying**

- 1. To select an input signal, use the button of INPUT (projector), or the buttons of RGB, VIDEO or SEARCH (remote control).
- 2. To change the aspect ratio, use the button ASPECT (remote control).
- 3. To adjust the zoom and focus, use the zoom knob and the focus ring.



# **Turning off the power**

This product is able to turn off the main power during the cooling. However, please pay special attention to below two points when you do:

- (1) Please do not turn the projector on again for at least 1 minute in this case. Neglect could shorten the lifetime of the lamp.
- (2) During use or immediately after use, do not touch around the lamp and vents of the projector. It could cause a burn.
- 1. Press the STANDBY/ON (projector or remote control) button. The message "Power off?" will appear on the screen for approximately 5 seconds.
- 2. Press the STANDBY/ON (projector or remote control) button again while the message appears.

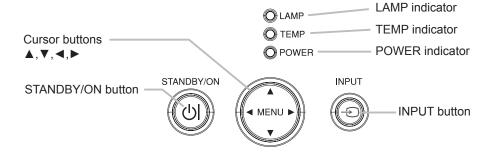
The projector lamp will go off, and the POWER indicator will begin blinking in orange. Then the POWER indicator will stop blinking and light in steady orange when the lamp cooling is complete.



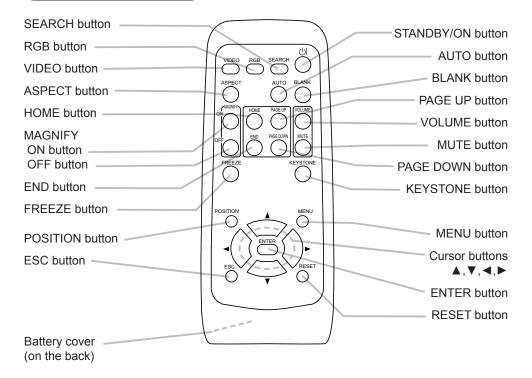
3. Make sure that the power indicator lights in steady orange, and set the power switch to the OFF position. The POWER indicator will go off.

# Control buttons / Remote control

# Control buttons



## Remote control



#### Lamp

## **⚠ WARNING**







- ▶The projector uses a high-pressure mercury glass lamp. The lamp can <u>break</u> with a loud bang, or burn out, if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, when the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury to escape from the projector's vent holes.
- ▶ About disposal of a lamp This product contains a mercury lamp; do not put it in a trash. Dispose of it in accordance with environmental laws. For lamp recycling, go to www.lamprecycle.org. (in the US)

For product disposal, contact your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).

For more information, call your dealer.

 If the lamp should break (it will make a loud bang when it does), unplug the power cord from the outlet, and make sure to request a replacement lamp from your local dealer. Note that shards of glass could damage the inside of the projector, or cause injury during handling, so please do not try to clean the projector or replace the lamp yourself.

the plug from the power

outlet

- If the lamp should break (it will make a loud bang when it does). Disconnect ventilate the room well, and make sure not to breathe the gas that comes out of the projector vents, or get it in your eyes or mouth.
  - Before replacing the lamp, turn the projector off and unplug the power cord, then wait at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.
  - Never unscrew except the appointed (marked by an arrow) screws.



- Do not open the lamp cover while the projector is suspended from the ceiling. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened. In addition, working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken.
- Do not use the projector with the lamp cover removed. To replace the lamp, make sure that the screws are tightened firmly. Loose screws could result in damage or injury.
- Use only the lamp of the specified type.



- If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp. If this happens, contact your local dealer or a service representative.
- Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
- Using the lamp for long periods of time, could cause it dark, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, please replace the lamp as soon as possible. Do not use old (used) lamps; this is a cause of breakage.

#### Lamp (continued)

A lamp has a finite product life. Using the lamp for long periods of time could cause the pictures darker or the color tone poor. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. Preparation of a new lamp and early replacement are recommended. To prepare a new lamp, contact your dealer and tell the lamp type number.

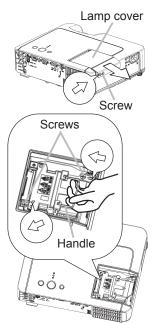
## Type number = DT00731.

- 1 Turn the projector off, and unplug the power cord. Allow the lamp to cool for at least 45 minutes.
- 2. Prepare a new lamp.

  If the projector is mounted on the ceiling, or if the lamp has broken, also ask the dealer to replace the lamp.

#### In the case of replacement by yourself,

- 3. Loosen the lamp cover screw (marked by arrow) and then slide the lamp cover to the side to remove it.
- 4. Loosen the 2 screws (marked by arrow) of the lamp, and slowly pick up the lamp by the handles.
- 5. Insert the new lamp, and retighten firmly the two screws that are loosened in the previous process to lock it in place.
- 6. Slide the lamp cover back in place and firmly fasten the lamp cover screws.
- 7. Turn the projector on and reset the lamp time using the LAMP TIME function in the OPTION menu.
- (1) Press the MENU button to display a menu. Only when the EASY MENU has appeared, please perform the next step (2).
- (2) Point at the "Go To Advance Menu …" in the menu using ▼/▲ button, then press the ▶ button.
- (3) Point at the "OPTION" in the left column of the menu using ▼/▲ button, then press the ▶ button.
- (4) Point at the "LAMP TIME" using ▼/▲ button, then press the ▶ button. A dialog will appear.
- (5) Press the ▲ button to select "RESET" on the dialog. It performs resetting the lamp time.



**NOTE** • Please reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp.

#### Air filter

**►WARNING** ► Before caring, make sure the power switch is off and the power cable is not plugged in, then allow the projector to cool sufficiently. The care in a high temperature state of the projector could cause an electric shock, a burn and/or malfunction to the projector.

- ▶ Use only the air filter of the specified type. Do not use the projector with the air filter and the filter cover removed. It could result in a fire and/or malfunction to the projector.
- ▶ The air filter should be cleaned periodically. If the air filter becomes clogged by dust or the like, internal temperatures rise and could cause a fire, a burn and/or malfunction to the projector.

**NOTE** • Please replace the air filter when it is damaged or too soiled, and also when you replace the lamp.

- Please reset the filter time only when you have cleaned or replaced the air filter, for a suitable indication about the air filter.
- The projector may display the message such as "CHECK THE AIR FLOW" or turn off the projector, to prevent the internal heat level rising.

If the air filter becomes clogged by dust or the like, internal temperatures rise and could cause a fire, a burn and/or malfunction to the projector. When the indicators or a message prompts you to clean the air filter, clean the air filter as soon as possible.

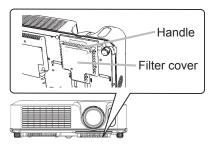
Please check and clean the air filter periodically, even if there is no message. Please replace the air filter when it is damaged or too soiled. Preparation of a new air filter is recommended.

To prepare a new air filter, contact your dealer and tell the air filter type number.

# Type number = NJ22222

And also when you replace the lamp, please replace the air filter. An air filter of specified type will come together with a replacement lamp for this projector.

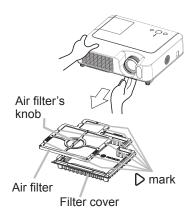
- 1. Turn the projector off, and unplug the power cord. Allow the lamp to cool for at least 45 minutes.
- 2. When the projector is suspended from the ceiling, apply the vacuum cleaner to and around the filter cover first, to prevent penetration of dust or the like.
- While supporting the projector with one hand, use your other hand to pull the filter cover forward in the direction of the arrow. Remove the air filter.



#### (Air filter (continued)

firmly in place.

- 4. Apply a vacuum cleaner to the air filter and the filter cover. Please replace the air filter when it is damaged or too soiled.
- 5. Replace the air filter in its original position. Secure the air filter in place by pressing each of the six ▷ locations. Make sure there is no dust or dirt remaining after the cover is in place. If any dust or dirt remains use a vacuum cleaner to remove it as when placing the filter cover on the air filter. Reattach the filter cover to the projector by aligning the filter cover with the grooves on the projector. While holding the handle, push down on the filter cover until it locks



- 6. Turn the projector on and reset the filter time using the FILTER TIME function in the OPTION menu.
- (1) Press the MENU button to display a menu. When the EASY MENU has appeared, please skip the next step (2).
- (2) Point at the "OPTION" in the left column of the menu using ▼/▲ button, then press the ▶ button.
- (3) Point at the "FILTER TIME" using ▼/▲ button, then press the ▶ button. A dialog will appear.
- (4) Press the ▲ button to select "RESET" on the dialog. It performs resetting the lamp time.

# Replacing Internal Clock battery (for the models CP-S245, CP-X255 only)

Consumption of the battery makes the clock not to work correctly. (Please refer to  $\frac{\tau}{\omega}$ Consumption of the battery makes the clock not to work concess, the User's Manual - Operating Guide.) When the clock is wrong or it has stopped, and the following procedures.

**△WARNING** ► Always handle the batteries with care and use them only as directed. Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

And also improper use may result in cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.

- Be sure to use only the batteries specified. Do not use batteries of different types at the same time. Do not mix a new battery with used one.
- Make sure the plus and minus terminals are correctly aligned when loading a battery.
- Keep a battery away from children and pets.
- Do not short circuit or solder a battery.
- Do not allow a battery in a fire or water. Keep batteries in a dark, cool and dry place.
- If you observe a leakage of a battery, wipe out the flower and then replace a battery. If the liquid adheres to your body or clothes, rinse well with water immediately.
- Obey the local laws on disposing the battery.
- Turn the projector off, and unplug the power cord. Allow the projector to cool sufficiently.
- 2. After making sure that the projector has cooled adequately, slowly turn over the projector, so that the bottom is facing.
- 3. Remove the battery cover.
- Turn the battery cover in the direction indicated "OPEN" using such as coins. Then the battery cover will come up. While removing the battery cover, pick its knob.
- Take the old battery out.
  - Press the metal claw of the battery holder. Then the battery will come up. Remove the battery.
- Put a new battery in.

Replace battery with HITACHI MAXELL, Part No.CR2032 only. Use of another battery may present a risk of fire or explosion.

Insert a new battery in the battery holder according to its minus terminal ⊖ as indicated in the battery holder, so that the side marked by + is facing. And push the battery into the battery holder fully to fix.

Close the battery cover.

Replace the battery cover in place, then turn it in the direction indicated "CLOSE" using such as coins, to fix.



**Battery Cover** 









"+" marking







# About "User's Manual - Operating Guide"

The "User's Manual - Operating Guide" of this projector is written into the CD-ROM. Before using, please read the following and use the CD-ROM correctly.

▲ CAUTION • Only use the CD-ROM in a computer CD drive. The CD-ROM is designed for PC use only. NEVER INSERT THE CD-ROM INTO A NON-COMPUTER CD PLAYER! Inserting the CD-ROM into an incompatible CD drive may produce a loud noise, which in turn MAY RESULT IN EAR AND SPEAKER DAMAGE!

• After using CD-ROM, please put it into CD case and keep it. Please keep the CD neither in direct sunlight nor in a high temperature and high humidity environment.

#### NOTE

- The information in the CD-ROM is subject to change without notice.
- No responsibility is taken for any obstacle and defect to hardware and software of your PC as a result of the use of the CD.-ROM.
- All or Any part of the information in the CD-ROM must not be copied, reproduced or republished without notice to our company.

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# System requirements

The system for using the CD-ROM requires the following.

Windows®: OS:Microsoft® Windows® 95, 98, 98SE, NT4.0, Me, 2000/XP

CPU:Pentium® processor 133MHz / Memory:32MB or more

Macintosh®: OS:Mac OS 10.2 or later

CPU:Power PC® / Memory:32MB or more

CD-ROM drive: 4x CD-ROM drive

**Display:** 256 color / 640x480 dots resolution **Applications:** Microsoft Internet Explorer4.0 and

Adobe Acrobat Reader 4.0 or later

## ■ Use the attached CD-ROM

1. Insert CD into PC's CD-ROM drive.

**Windows**:In a while, Web browser automatically starts. Start up window comes up. **Macintosh**:(1) Double-click on the "Hitachi Projectors" icon appeared on the desktop screen. (2) When "main.html" file is clicked. Web browser will start and Initial window will appear.

2. Acrobat®Reader® is required to open the manual on the CD-ROM. If it is not on your PC, please download the Acrobat® Reader® 5.1 from Adobe Web site. Click the "Get Acrobat Reader" button on the screen to access there.

**Windows®:** CD-ROM includes installer of Acrobat Reader 5.1 English version.

Clicking "for Windows" on the screen starts installer program.

3. Click the model name of your projector first, and then click language you want from the displayed list. The operating guide will open.